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# Wh-questions with conjoined wh-words

Hana Skrabalova

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## Abstract

This paper examines two types of wh-questions with conjoined wh-words. In type 1 questions, all wh-words appear at the beginning of the interrogative clause. In type 2 questions, one or more wh-words appear at the beginning of the clause, and the wh-item introduced by the conjunction appears at the end of the clause. I show that conjoined wh-words in these two types of questions do not have the same prosodic, syntactic, and semantic properties. I then argue that type 1 questions involve phrasal coordination, while type 2 questions involve clausal coordination with ellipsis.

## 1 Two types of questions with conjoined wh-words

This paper examines two types of wh-questions containing two (or more) wh-words and where the last wh-item is introduced by a conjunction. In type 1 questions, all wh-words, including the one introduced by the conjunction, appear at the beginning of the interrogative clause, see (1). In type 2 questions, one or more wh-words appear at the beginning of the clause, and the wh-item introduced by the conjunction appears at the end of the clause, see (2). Through the paper, I will focus on questions with only two wh-words, but all what will be said also apply to questions with more than two wh-words.

- (1) a. Kdo a koho pozval? (type 1 questions)  
who-NOM and who-ACC invited<sup>1</sup>  
Who invited whom?  
b. Kdo koho a kdy pozval?  
who-NOM who-ACC and when invited  
Who invited whom, and when?
- (2) a. Koho viděl a kde? (type 2 questions)  
who-ACC (he) saw and where  
Whom did he see, and where?  
b. Koho kde viděl a kdy?  
who-ACC where (he) saw and when  
Whom did he see, where and when?

Both question types exist in other Slavic and non-Slavic language, as show the following examples from Russian, French, and Hungarian:

- (3) a. Kto i čto kupil? (Russian, Kazenin 2001)

<sup>1</sup> The following abbreviations are used in the glosses: ACC = accusative case, ADJ = adjective, AUX = auxiliary verb ('to be'), CL = clitic, COND = conditional, DAT = dative case, FUT = future tense, GEN = genitive case, IMP = imperative, INSTR = instrumental case, NEG = negation, NOM = nominative case, PART = particle, POSS = possession, QUANT = quantifier, REFL = reflexive pronoun, SG = singular.

who-NOM and what-ACC bought

Who bought what ?

- b. Kogda zakončilas' Perestrojka i čem ?  
when ended Perestroik and what-INSTR  
When did Perestroik end and how ?

- (4) a. Quand et où a lieu cette conférence ? (French, Skrabalova 2006b)  
When and where takes place this conference ?  
b. Qui as-tu rencontré, et où ?  
Whom did you meet, and where ?

- (5) a. Ki és mikor látta Marit ? (Hungarian, Lipták 2001)  
who-NOM and when saw-3SG Mary-ACC  
Who saw Mary, and when ?  
b. Ki látta Marit és mikor ?  
who-NOM saw-3SG Mary-ACC and when  
Who saw Mary, and when ?

The aim of this paper is to describe the properties of Czech questions in (1) and (2) and to analyze their syntactic structure. I especially ask whether these questions involve clausal coordinations with ellipsis or phrasal coordinations. The paper is organized as follows. In the section 2, I show the syntactic, prosodic and semantic properties of wh-words in type 1 questions. In the section 3, I show the syntactic, prosodic and semantic properties of wh-words in type 2 questions. The section 4 summarizes the properties of the two question types. Finally, the section 5 proposes a syntactic analysis for each type of questions. It is argued that type 1 questions involve phrasal coordination, problematic though it can be from semantic point of view. Type 2 questions are argued to be clausal coordinations with one elliptical conjunct.

## 2 Properties of wh-words in type 1 questions

### 2.1 Syntactic functions of wh-words

Wh-words in type 1 questions can have either the same syntactic function as in (6), where both wh-words stay for the internal argument of the verb, or different syntactic functions as in (7)<sup>2</sup>, where the first wh-word stands for the internal argument of the verb and the second one for a locative adjunct.

- (6) Koho a čeho se bojíš ?  
who-GEN and what-GEN REFL fear-2SG ?  
Who and what do you fear ?

- (7) Nechtěl říct, koho a kde viděl.  
(he) NEG-wanted say who-ACC and where (he) saw  
He didn't want to say whom he had seen, and where.

Coordinations like in (6) can be considered as quite normal, since they obey the Wasow's

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<sup>2</sup> Wh-words *kdo* and *co* having different functions also bear different cases.

generalization according to which conjoined items must have the same syntactic function and share the syntactic properties associated with this function (Pullum & Zwicky 1986). On the contrary, coordinations like in (7) are problematic with respect to this generalization (see section 5.2.2). Such coordinations are however completely natural in Czech (and other Slavic languages), where the conjoined wh-words can be both arguments and adjuncts. Czech is thus more permissive than languages like French, English or Dutch, where only adjuncts can be conjoined. The example (8) below shows a coordination of two arguments, a coordination of two adjuncts and a coordination of one argument and one adjunct. Note also that there are no superiority effects in type 1 questions, exactly as in multiples questions (Meyer 2004):

- (8) a. Komu a co / Co a komu řekl ?  
 who-DAT and what-ACC / what-ACC and who-DAT (he) said  
 What did he say, and to whom ?
- b. Kdy a jak / Jak a kdy skončila třicetiletá válka ?  
 when and how / how and when finished 30-years war  
 When and how did the 30-years war finish ?
- c. Kdo a kdy / Kdy a kdo napsal tu knihu ?  
 who-NOM and when / when and who-NOM wrote this-ACC book-ACC  
 Who evaluated the students, and how ?

However, contrary to multiple questions, wh-words embedded within another phrase (NP, PP) cannot be conjoined with non-embedded ones, as shown in (9). This suggests that conjoined wh-words are not syntactically independent, as it will be shown in the following subsections .

- (9) a. \*Kdo a koho má rád dceru ? (conjoined wh-words)  
 who-NOM and who-GEN likes well daughter-ACC
- b. Kdo koho má rád dceru ? (multiple wh-words)  
 who-NOM who-GEN likes well daughter-ACC  
 Who likes whose daughter ?

## 2.2 Wh-words as prosodic and syntactic unit

Conjoined wh-words in type 1 questions form undoubtedly a prosodic unit. Indeed, it is not possible to separate by a pause the wh-word introduced by the conjunction from the first wh-word, as in (11), where the commas indicate the separation. All wh-words can nevertheless bear a heavy stress.

- (10) a. Dej mi vědět, [kdo a koho] pozval.  
 give me know who-NOM and who-ACC (he) invited  
 Let me know who invited whom.
- b. Dej mi vědět, [kam a kdy] Petr šel.  
 give me know where and when Peter went  
 Let me know where and when Peter went.
- (11) a. \*Dej mi vědět [kdo], [a koho], pozval.  
 b. \*Dej mi vědět [kam], [a kdy], Petr šel.

But the conjoined wh-words in (10) form not only a prosodic unit, but also a syntactic unit. We can

see indeed that neither second-position clitics nor the complementizer *že* ('that') may intervene between the conjoined wh-words in (12). In multiple questions, on the contrary, both clitics and complementizer wh-words may appear between multiple wh-words, as shown in (13).

- (12) a. Kdo (\*mu) a co (mu) řekl ? (conjoined wh-words)  
 who-NOM CL:he-DAT and what-ACC CL:he-DAT said  
 Who said which thing to him ?  
 b. Kdo (\*že) a co (že) řekl ?  
 who-NOM that and what-ACC that said  
 Who said which thing ?
- (13) a. Kdo (mu) co (\*mu) řekl ? (multiple wh-words)  
 who-NOM CL:him what-ACC CL:him said  
 Who said what to him ?  
 b. Kdo (že) co (\*že) řekl ?  
 who-NOM that what-ACC that said  
 Who said what ?

The contrast between the conjoined words in (12) and the multiple wh-words in (13) suggests that conjoined wh-words are not independent constituents, but that they form a single constituent, which includes the conjunction.

## 2.4 Reading of type 1 questions

Type 1 questions receive a single-pair reading, contrary to multiple questions which receive a list-pair reading, compare (14) and (15). This means that type 1 questions do not presuppose the existence of a specific set of individuals from which the answer would be picked. In (14), the question asks for the identification of the person who bought something and for the identification of the thing which has been bought by this person.

- (14) a. Kdo a co koupil ?  
 who-NOM and what-ACC bought  
 Who bought what?  
 b. Marie koupila auto.  
 Mary-NOM bought car-ACC  
 Mary bought a car.
- (15) a. Kdo co koupil ?  
 who-NOM what-ACC bought  
 Who bought what?  
 b. Marie koupila auto, Petr motorku a Jan kolo.  
 Mary-NOM bought car-ACC, Peter-NOM motorcycle-ACC and John-NOM bike-ACC  
 Mary bought a car, Peter (bought) a motorcycle, and John (bought) a bike.

Answers to type 1 questions are thus single propositions in which the constituents corresponding to the wh-words may be focused. The conjunction can also appear in the answer, backed up by a demonstrative particle *to*, as shown in (16).

- (16) a. Kdo a komu koupil auto?

- who-NOM and who-DAT bought car  
 Who bought the car, and to whom ?
- b. MARIE koupila kolo, a to PETROVI.  
 Mary-NOM bought bike-ACC and this Peter-DAT  
 Mary bought the car to Peter.

Finally, all conjoined wh-words in type 1 questions are involved in a single event denoted by the verb of the interrogative clause. Therefore, it is impossible, in particular when wh-words are arguments, to use in these questions the conjunction *nebo* ('or'), as shown in (17a), or to paraphrase them by a sentential coordination, as shown in (17b). So, the data in (17) confirm that conjoined wh-words in type 1 questions form a single constituent.

- (17) a. \*Kdo nebo koho pozval ?  
 who-NOM or who-ACC invited
- b. \*Kdo pozval a koho pozval ?  
 who-NOM invited and who-ACC invited

### 3 Properties of wh-words in type 2 questions

#### 3.1 Syntactic functions of wh-words

Conjoined wh-words in type 2 questions can also have either the same syntactic function or different syntactic functions, as shown in (18) and (19) respectively:

- (18) Koho se bojíš, a čeho ?  
 Who-GEN REFL fear-2SG and what-GEN  
 Who do you fear, and what ?
- (19) Chtěl jsem vědět, koho potkal a kde.  
 wanted AUX-1SG know who-ACC (he) met and where  
 I wanted to know whom he had met and where.

Wh-words in type 2 questions can also be arguments or adjuncts, as shown in the example (20). However, argumental wh-words cannot appear in the clause-final position, except if they stand for an optional argument, as the word *komu* (to-whom) in (20c).

- (20) a. Koho jsi viděl a kde ? / \*Kde jsi viděl a koho ?  
 Who-ACC AUX-2SG saw and where / where AUX-2SG saw and who-ACC  
 Whom did you see, and where ?
- b. Kdy skončila třicetiletá válka a jak ? / Jak skončila ... válka a kdy ?  
 when finished 30-years war and how / how finished war and when  
 When did the Thirty years war finish, and how ?
- c. Co řekl a komu ? / \*Komu řekl a co ?  
 what-ACC (he) said and who-DAT / who-DAT (he) said and what-ACC  
 What did he say, and to whom ?

#### 3.2 Prosodic properties of wh-words

The wh-item introduced by the conjunction can either form a prosodic unit with the interrogative

clause, or form an independent prosodic unit. In the case the wh-word is not integrated into the clause (indicated by — in (21)), it will be emphasized:

- (21) a. Kdy jsi potkal Janova bratra, — a KDE ?  
when AUX-2SG met Jean-POSS brother-ACC and where  
When did you meet John's brother, and where ?  
b. Chtěl bych vědět kdy skončila ta hrozná válka v Bosně, — a JAK ?  
wanted COND-1SG know when finished that terrible war in Bosnia and how  
I would like to know when that terrible war in Bosnia finished, and how.

However, the sequence [conjunction wh-word] may not appear inside the interrogative clause, whether it is prosodically integrated or not, as shown in (22). Since the sequence [conjunction wh-word] in Czech cannot move through the clause, it cannot thus function as an adjunct:

- (22) a. \*Kdy jsi potkal, a KDE, Janova nejmladšího bratra ?  
when AUX-2SG met and where Jean-POSS youngest-ACC brother-ACC  
(When did you meet the John's youngest brother, and where ?)  
b. \*Chtěl bych vědět kdy skončila, a JAK, ta hrozná válka v Bosně.  
wanted COND-1SG know when finished and how that terrible war in Bosnia  
(I would like to know when that terrible war in Bosnia finished, and how.)

### 3.3 Reading of type 2 questions

Type 2 questions are interpreted as conjoined single questions. They can easily be paraphrased by sentential coordinations:

- (23) a. Kdo přijde a kdy ?  
who-NOM come-FUT-3SG and when  
Who will come, and when ?  
b. Kdo přijde a kdy přijde ?  
who-NOM come-FUT-3SG and when (he) come-FUT-3SG  
Who will come, and when will he come ?

The wh-words in type 2 questions receive thus a single-pair reading, as in type (1) questions. In the answer, the constituents corresponding to the wh-words can be focused and the conjunction can again appear in the answer. The sentences in (24) are possible answers to the questions in (23).

- (24) a. Jan přijde dnes večer.  
John come-FUT-3SG this evening  
John is coming this evening.  
b. Přijde Jan a (to) dnes večer.  
come-FUT-3SG John, and PART this evening  
John is coming, and this evening !

Finally, in type 2 questions with more than two wh-words, the wh-words at the beginning of the clause can be either conjoined or adjacent, as we can see in (25a) and (26a). This means that the questions in (25a) and (26a) combine two different strategies of questioning. The question (25a) is a type 2 question which contains a type 1 question. The question (26a) is a type 2 question which

contains a multiple question. Therefore, these questions do not have the same reading. In the question (25a), the conjoined wh-words receive a single-pair reading which combines with a single reading of the conjoined final wh-word. The answer in (25b) identifies thus the two persons involved in the inviting and the times when this happened.

- (25) a. Kdo a koho pozval, a kam ?  
 who-NOM and who-ACC invited and where  
 Who invited whom, and where ?  
 b. Jan pozval Marii do divadla.  
 John-NOM invited Mary-ACC to theatre-GEN  
 John invited Mary to the theatre.

In the question (26a), the multiple wh-words receive a list-pair reading, which combines with a single reading of the conjoined wh-word. The answer in (26b) contains the list of pairs of inviting and invited persons. The wh-word introduced by the conjunction applies then to each pair of the list.

- (26) a. Kdo koho pozval, a kam ?  
 who-NOM who-ACC invited and where  
 Who invited whom, and where ?  
 b. Jan pozval Marii do divadla, Petr Moniku do kina  
 John-NOM invited Mary-ACC to theatre-GEN, Peter-NOM Monika-ACC to cinema-  
 GEN  
 a. Pavel Annu na veceri.  
 and Paul-NOM Anna-ACC on dinner-ACC  
 John invited Mary to the theatre, Peter (invited) Monika to the cinema, and Paul  
 (invited) Anna to have dinner.

## 4 Summary of properties of conjoined wh-words

This section summarizes the properties of wh-words in type 1 and 2 questions:

Property	Type 1 questions <i>Wh<sub>1</sub> Conj Wh<sub>2</sub></i>	Type 2 questions <i>Wh<sub>1</sub>...Conj Wh<sub>2</sub></i>
Wh <sub>1</sub> = argument	yes	yes
Wh <sub>1</sub> = adjunct	yes	yes
Wh <sub>2</sub> = argument	yes	no*
Wh <sub>2</sub> = adjunct	yes	yes
Adjacency of Wh <sub>1</sub> and [Conj Wh <sub>2</sub> ]	yes	no
[Conj Wh <sub>2</sub> ] <sub>1</sub> prosodically autonomous	no	yes
Single-pair reading	yes	yes
Sentential reading	no**	yes

\*unless (i) Wh<sub>2</sub> is an optional argument and (ii) Wh<sub>2</sub> has the same function as Wh<sub>1</sub>.

\*\*unless Wh<sub>2</sub> has the same function as Wh<sub>1</sub>.



## 5 Syntactic analysis

This section deals with the syntactic analysis of the two question type 1. Two issues in particular will be raised. The first issue is whether these questions involve clausal coordination with ellipsis or phrasal coordination. If they involve clausal coordination with ellipsis, the second issue is whether the elliptic conjunct contains deleted material or not.

### 5.1 Clausal coordination with ellipsis

According to Banréti (1992), both types of questions in Hungarian involve clausal coordination with deletion in one of the conjoined clauses. In type 1 questions, deletion occurs in the first clause, as shown in (27b). In type 2 questions, deletion occurs in the second clause, as shown in (28b).

- (27) a. Kdo a kdy přišel ?  
who-NOM and when came  
b. [[Kdo ~~přišel~~] a [kdy přišel]]  
who-NOM came and when (he) came
- (28) a. Kdo přišel a kdy ?  
who-NOM came and when  
b. [[Kdo přišel] a [kdy ~~přišel~~]]  
who-NOM came and when (he) came

The clausal analysis places the two question types on parallel grounds. We have seen, however, that these questions do not have the same properties. This conception must thus be wrong. It can be easily shown that type 1 and type 2 questions are different syntactic structures. The following subsections will show that clausal analysis must be rejected for type 1 questions, but can be maintained for type 2 questions.

#### 5.1.1 Against clausal analysis of type 1 questions

The first evidence against clausal analysis of type 1 questions comes from their constituency. It has been shown in the examples (12) and (13) above that neither clitics nor complementizer, that is the elements that occur in the left periphery of the clause and intervene between multiple wh-words, may intervene between conjoined wh-words. This behaviour cannot be explained by the clausal analysis in (27) according to which the conjoined wh-words do not form a constituent.

The second argument comes from the questions where both wh-words are obligatory arguments of the verb. We have seen that type 2 questions where the final wh-word is an obligatory argument are ungrammatical. According to the clausal analysis, however, both question types have the same underlying structure and are thus semantically equivalent. This means that the clausal analysis cannot explain the difference in acceptability of examples like in (29).

- (29) a. Kdo a koho uhodil ?  
who-NOM and who-ACC hit  
Who hit whom ?  
b. \*Kdo uhodil a koho ?  
who-NOM hit and who-ACC

Moreover, the underlying structure of the questions in (29) are ungrammatical since the conjoined clauses miss the obligatory arguments, see (30a). But even if all the arguments were present, we would have to admit that some are null, as in (30b). However, there are no other evidence in Czech for a null (referential) object pronoun and the null (referentially definite) subject pronoun cannot be questioned.

- (30) a. \*[[Kdo uhodil] a [koho uhodil]] ?  
           who-NOM hit           and who-ACC hit  
       b. [[Kdo uhodil *pro<sub>obj</sub>*] a [koho *pro<sub>subj</sub>* uhodil]] ?  
           who-NOM hit           (him) and who-ACC he     hit

I conclude then that the clausal analysis cannot account for type 1 questions where conjoined wh-words have different syntactic functions<sup>3</sup>.

### 5.1.2 Evidence for a clausal analysis of type 2 questions

Contrary to type 1 questions, type 2 questions are easily analyzed as clausal coordinations.

First, the clause containing the first wh-item can function as an independent interrogative clause. Second, the wh-item introduced by the conjunction cannot be an argument of the verb in the interrogative clause. That means the wh-word in this position is external to the interrogative clause.

Third, the wh-item introduced by the conjunction is always interpreted as a single question.

Finally, if type 2 questions involve two clauses, we predict that the first one can contain multiple or conjoined wh-words. This is what we have seen in (25) and (26) above. I conclude thus that type 2 questions involve clausal coordination:

- (31) [CoordP [CP<sub>1</sub> Wh<sub>1</sub> [TP...]] Conj [CP<sub>2</sub> Wh<sub>2</sub> [TP...]]]

The questions arises however what is the syntactic status of the elliptic conjunct in type 2 questions. There are two possibilities. Either the elliptic conjunct is a clause with deleted material, or the elliptic conjunct is a clausal fragment (Ginzburg & Sag 2001). In the former case, the syntactic reconstruction with identity should always be possible. In the latter case, there would be no syntactic reconstruction, but the fragment would be interpreted as a clause. If we look now on the following examples, we see that the syntactic reconstruction with identity is possible only when the first wh-item is an adjunct, as in (32a). If the first wh-item is an argument, an NP or a pronoun must appear in the second clause, see (32b) and (32c).

- (32) a. Kdy jsi potkal Jana a kde (jsi potkal Jana) ?  
           when AUX-2SG met John-ACC and where AUX-2SG met John-ACC  
           When did you meet John and where (did you meet John) ?  
       b. \*Koho jsi potkal a kde (jsi potkal) ?  
           who-ACC AUX-2SG met and where AUX-2SG met  
           (\*Who did you meet John and where did you meet ?)  
       c. Koho jsi potkal a kde (jsi ho potkal)  
           who-ACC AUX-2SG met and where AUX-2SG CL:him met  
           Where did you meet John and where did you meet him ?

<sup>3</sup> A clausal analysis would be plausible for type 1 questions with conjoined wh-words bearing the same function.

I suggest thus that the elliptic conjunct would be better analyzed as a clausal fragment in the sense of Ginzburg and Sag (2001).

## 5.2 Phrasal coordination

### 5.2.1 Evidence for a phrasal analysis of conjoined wh-words in type 1 questions

There are three pieces of evidence for phrasal analysis of conjoined wh-words in type 1 questions.

First, the conjoined wh-words are strictly adjacent and behave as a single constituent.

Second, the conjoined wh-words behave as a single prosodic unit.

Finally, the conjoined wh-words are all involved into a single event denoted by the verb of the interrogative clause. This strongly suggests that conjoined wh-words form a coordinated phrase (see Lipták 2001 for Hungarian), as in (33).

(33) [CP [CoordP Wh<sub>1</sub> Conj Wh<sub>2</sub>] [TP...]]

We can however ask whether the morpheme *a* ('and') in type 1 question is really a conjunction, that means the head of the coordinate phrase (or Conjunction Phrase), as it has been proposed by Johannessen (1998). Penn (1999) claims that in type 1 questions in Serbo-Croatian, the morpheme *i* is not a conjunction, but a focus particle. Indeed, in Serbo-Croatian, the morpheme *i* which appears between the wh-words in (34a) also introduces the focused constituents, as we can see in (34b) and (34c), where *i* means 'also'. According to Penn, thus, type 1 questions are thus multiple questions where the wh-words are focused by the presence of the morpheme *i*.

- (34) a. Ko i kome je kupio auto? (Penn 1999)  
who-NOM and who-DAT AUX-3SG bought car  
Who bought the car for whom?  
b. Ivan je i danas sreo Mariju.  
Ivan AUX-3SG also today met Mary-ACC  
Ivan also met Mary today (not only yesterday).  
c. Knjigu i Mariji odnesi.  
book-ACC and/also Mary-DAT bring-IMP  
Bring the book to Mary.

I claim however that Penn's analysis is not a correct analysis, at least for Czech. In Czech, the morpheme *a* only appears in coordinate context, see (35a). It can never function as a focus particle, see (35b).

- (35) a. Jan potkal Marii včera a dneska.  
John met Mary yesterday and today  
John met Mary yesterday and today.  
b. Jan potkal Marii \*a / také dneska.  
John met Mary and / also today  
John met Mary also today (not only yesterday).

There is actually another morpheme in Czech, the morpheme *i*, which functions both as a conjunction (forcing a distributive reading) and as a focus particle (Skrabalova 2004), see (36a) and

(36b). However, *i* cannot conjoin wh-words, see (36c).

- (36)
- a. Jan potkal Marii včera i dneska.  
John met Mary yesterday and today  
John met Mary both yesterday and today.
  - b. Jan potkal Marii i dneska.  
John met Mary even/also today  
John met Mary even/also today (not only yesterday).
  - c. Kdo a / \*i komu koupil auto ?  
who-NOM and / and who-DAT bought car  
Who bought the car to whom ?

According to the data in (35) and (36), the morpheme *a* that appears between the wh-words in type 1 questions is a conjunction, and not a focus particle. Conjoined wh-words cannot be analyzed as multiple wh-words. This is also confirmed by the fact that multiple wh-words differ from conjoined wh-words by two other properties (see section 2): they do not form a single constituent, and they receive a list-pair reading.

### 5.2.2 How are the coordinations of wh-phrases licensed ?

It is generally assumed that conjuncts can neither be of different category nor have different syntactic functions (Williams 1981, Peterson 2004), as shown in (37a). Therefore, it should not be possible to conjoin wh-phrases in (37b), which is not correct.

- (37)
- a. \*I helped [<sub>NP</sub> Peter ] and [<sub>AdvP</sub> quickly].
  - b. \*Jan pozval [<sub>CoorP</sub> [<sub>NP</sub> Marii] a [<sub>PP</sub> do kina]].  
John invited Mary-ACC and to cinema

There are however at least two kinds of coordinations where conjuncts may have different functions. The first kind of unlike coordinations involves emphasized constituents. It has been noted (Lipták (2001) among others) that unlike constituents can be conjoined provided they are emphasized:

- (38)
- a. John read [<sub>NP</sub> a book] and [<sub>AdvP</sub> quickly] !
  - b. John met [<sub>CoorP</sub> [<sub>NP</sub> MARY] and [<sub>PP</sub> IN HER HOUSE]].

If we consider the coordinations in (39b) and (40b) in Czech, we see indeed that these coordinations are felicitous because the conjuncts are emphasized, or focused. The focusing here is natural if these sentences are used as answers to the questions in (39a) and (40a) respectively. The focused conjoined constituents in the answer correspond to the conjoined wh-words in the question. This is not surprising since wh-words are focus elements.

- (39)
- a. Chtěl bych vědět, koho a kam chce Jan pozvat.  
wanted COND-1SG know who-ACC and where want-3SG John invite  
I would like to know whom John wants to invite, and where.
  - b. Myslím, že chce pozvat MARIÍ a DO KINA.  
think-1SG that want-3SG invite Mary-ACC and to cinema  
I think that he wants to invite Mary to the movie.

- (40) a. Nevíš, kam a proč Petr jel ?  
 NEG-know-2SG where and why Peter went  
 Do you know where Peter went and why ?  
 b. Nejsem si jistý, ale myslím, že jel DO LONDÝNA a NA NĚJAKÝ

KONGRES.

NEG-am REFL sure but think-1SG that (he) went to London and for some congress  
 I'm not sure, but I guess he went to London for a congress.

The coordinations of focused unlike phrases like in the examples (39b) and (40b) suggest thus that wh-words may be conjoined precisely because they are focus elements.

The second kind of unlike coordinations involves quantifiers. The data below show that universal and negative quantifiers bearing different functions may indeed be conjoined:

- (41) a. Kdykoli a kamkoli jdu, vždycky ho potkám.  
 when-QUANT and where-QUANT go-1SG, always him meet-1SG  
 Whenever and wherever I go, I always come across him.  
 b. Kdykoli a kdekoli ho potkám, vždycky je dobře naladěný.  
 when-QUANT and where-QUANT him meet-1SG always is well mood-ADJ  
 Whenever and wherever I meet him, he is always in a good mood.

- (42) a. Pavel je pořád zalezlý doma. Ten nikdy a nikam nechce jít.  
 Paul is always hidden home he never and no-where NEG-wants go  
 Paul always hides home. He never wants to go anywhere.  
 b. Pavel má něco za lubem, ale nechce nic a nikomu říct.  
 Paul has something in mind, but NEG-want-3SG nothing-ACC and nobody-DAT say  
 Paul has something in mind, but he does not want to say anything to anybody.

If we assume that wh-words are quantified expressions (see Beghelli & Stowell 1997), the examples of quantifier coordinations in (41) and (42) suggest that wh-words may be conjoined precisely because they are quantified expressions.

### 5.3 Remaining issues

The analysis proposed in the previous sections leaves at least two remaining issues. The first issue concerns the fact that the coordinate wh-phrases have no equivalent *in situ*, contrary to other constructions involving extraction. The same problem arises however with the constructions such as partial VP fronting in German (Haider 1990 among others) or CP topicalization in English (Bresnan 1972). This issue is thus not specific to conjoined wh-word phrases. The second issue is why wh-coordination is not possible to the same extent in other languages which allow coordination of focused or quantified unlike constituents. This question suggests that there are other parameters licensing the wh-coordinations. Unfortunately, the answer to that question goes beyond the limits of this paper.

## 6 Conclusion

In this paper, I examined two types of questions with conjoined wh-words. In type 1 questions, all conjoined wh-words appear at the beginning of the interrogative clause. In type 2 questions, one or

more wh-words appear at the beginning of the interrogative clause, while the wh-word introduced by the conjunction is clause-final. I showed that type 1 and 2 questions have different syntactic, semantic, and prosodic properties. In particular, conjoined wh-words in type 1 questions form a single constituent and type 1 questions cannot be interpreted as coordinations of two (or more) single questions. Consequently, I argued that these two question types involve different syntactic structures. The differences between type 1 and type 2 questions can indeed be explained if we analyze type 1 questions as involving clause internal coordination of wh-phrases, and type 2 questions as involving coordination of clauses, one of them being elliptic. The coordination of wh-words bearing different syntactic functions seems problematic, but it is not an isolated phenomenon. Focused constituents and quantifiers bearing different functions can also be conjoined. Wh-coordination is thus another counter-example to the generalization that conjuncts must bear the same syntactic function.

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apple	3
banana	3
orange	3